UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/560,032	04/27/2000	Alexander C. Ranous	10002142	3043

22879 7590 07/02/2004

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER	
DELGADO, MICHAEL A	
ART UNIT	**PAPER NUMBER**
2144	10

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

1724

Office Action Summary	Application No.	Applicant(s)	
	09/560,032	RANOUS, ALEXANDER C.	
	Examiner	Art Unit	
	Michael S. A. Delgado	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 16 April 2004.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-31 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-31 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 4/16/04 have been fully considered but they are not persuasive. In response to the argument that an aggregator including the step of defining a rule chain is not taught by prior arts. In US Patent No. 6,405,251, Bullard teaches about the process of aggregating Network Accounting Records (NARs) (Col 16, lines 1-10) but does not explicitly teach about using a rule chain approach in aggregating the NARs. The information received in network account recording is of a heterogeneous nature and requires an aggregation process that incorporates this property. It would have been obvious to use a rule chain approach similar to the one taught in US Patent No. 5,970,490 by Morgenstern (Fig. 4), (Col 20, line 45-Col 22, line 67).

2. In response to the argument that the aggregation process involves using more than one rule chain is not taught. Because of heterogeneous nature, the dependency and the different availability times of the Network Accounting Records, aggregation takes place in stages to match up with the gathering of the NARs. This approach is taught by Morgenstern (Fig. 4), (Col 20, line 45-Col 22, line 67). The rule chains as claimed are similar to the rule nodes as disclosed.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,405,251 by Bullard et al in view of US patent No. 5,970,490 by Morgenstern.

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

In claim 1, Bullard teaches about a method for recording network usage, the method comprising the steps of (Col 1, lines 15-30):

defining a network data collector including an encapsulator " NAR processing (Fig 14, 306, 302)", an aggregator, and a data storage system "Local store , (Fig 14, 314)", (Col 15, lines 45-65), (Col 16, lines 1-10);

receiving a set of network accounting data via the encapsulator (Col 15, lines 45-65);

converting the network accounting data set to a standard data format "NAR format" (Col 15, lines 45-65);

storing the aggregated network accounting data set in the data storage system "Local store , (Fig 14, 314)", (Col 16, lines 1-10); and

but does not explicitly teach processing the network accounting data set via the aggregator, including the steps of defining a rule chain and applying the rule chain to the

network accounting data set to construct an aggregation tree including creating an aggregated network accounting data set.

The method of using a rule chain approach in the aggregation of heterogeneous database is well known in the art and is taught by Morgenstern (Fig. 4), (Col 20, line 45-Col 22, line 67). Morgenstern teaches about generating new data base node by match (Col 17, line 65-Col 18, line 10) or filtering (Col 32, lines 50-65) a sequence of outputs. The process of gathering data occurs over a time period, which requires correlation of different data that occur at different time during the collection period. It is inherent because of the diverse nature of the information collected that different rule will be apply at different stages of the collection period as demonstrated by Morgenstern (Fig 4, 224) (Fig 4, 220),(Col 20, line 45-Col 22, line 67). It would have been obvious at the time of the invention for someone of ordinary skill to use a chain rule approach to aggregate data that are stored in a tree like structure to insure the accuracy of the final output data.

In database like accounting record, data are organized base on their dependency to other data. This organization is naturally realized as a tree structure as disclosed by Morgenstern (Fig. 4), (Col 20, lines 45-55). This concept is often used in data base management, which contains a root directory (main node), which is subdivided into subdirectory (limb node or leaf node). By organizing the data in a tree structure the dependency and the correlation of data is clearly represented which make the process of applying rules more define and accurate. By using a chain rule approach, it was guarantee that the final output had gone through the correct sequence of output generation base on its dependency to give the most accurate result (Col 22, lines 20-65).

Because of dependency, the final output has to be placed on hold until all the sequence of events that are used to generate the final output is available.

In claim 2, Bullard combines with Morgenstern teaches about a method of claim 1, wherein the step of applying the rule chain to the network accounting data set to construct the aggregation tree includes the step of applying a rule from the rule chain to the network accounting data set to define a group node (Morgenstern (Col 20, lines 45-55), Covered in claim 1).

In claim 3, Bullard combines with Morgenstern teaches about a method of claim 2, wherein the rule is a match rule (Col 17, lines 35-40).

In claim 4, Bullard combines with Morgenstern teaches about a method of claim 1, wherein the step of applying the rule chain to the network accounting data set to construct the aggregation tree includes the step of applying a set of match rules to the network accounting data set to define a hierarchy of group nodes within the aggregation tree (Covered in claim 1).

In claim 5, Bullard combines with Morgenstern teaches about a method of claim 4, wherein the step of applying the rule chain to the network accounting data set to construct the aggregation tree includes the step of applying an aggregation rule to the match group node to create the aggregated network accounting data set (Covered in claim 1).

In claim 6, Bullard combines with Morgenstern teaches about a method of claim 1, wherein the step of applying the rule chain to the network accounting data set to construct the aggregation tree includes the step of applying a data manipulation rule "constructing NAR as appropriate" to the network accounting data set (Col 15, lines 60-65).

In claim 7, Bullard combines with Morgenstern teaches about a method of claim 6, further comprising the step of defining the data manipulation rule to be an adornment rule " enhancement" (Col 15, line 45-Col 16, line 15).

In claim 8, Bullard combines with Morgenstern teaches about a method of claim 6, further comprising the step of defining the data manipulation rule to be a filtering rule (Covered in claim 1).

In claim 9, Bullard combines with Morgenstern teaches about a method of claim 1, wherein the network accounting data set is a set of session data (Col 8, lines 15-38), (Table 1).

In claim 10, Bullard combines with Morgenstern teaches about a method of claim 1, wherein the network accounting data set is a set of usage data (Col 8, lines 15-38), (Table 1).

In claim 11, Bullard teaches about a method of claim 1, further comprising the step of defining a data flush interval " associated with that entity over a specified period of time" (Col 14, lines 45-50); and

wherein the step of storing the aggregated network accounting data set includes the step of transferring the aggregated network accounting data to the data storage system after a period of time associated with the data flush interval (Col 16, lines 1-10).

In claim 12, Bullard combines with Morgenstern teaches about a method of claim 1, further comprising the step of defining a rule within the rule chain by Java object class "relational database" , and allows additional rule types to be added to the rule chain corresponding to the Java object class (Morgenstern (Col 40, lines 45-60).

In claim 13, Bullard combines with Morgenstern teaches about a method for recording network usage including correlating of network usage information and network session information, the method comprising the steps of (Col 15, lines 45-67):

defining a network data correlator collector including an encapsulator " NAR processing (Fig 14, 306, 302)", an aggregator, and a data storage system "Local store , (Fig 14, 314)" (Col 15, lines 45-67), (Col 16, lines 1-10);

receiving a set of network session data via the encapsulator (Col 15, lines 45-67), (Table 1);

processing the network session data set via the aggregator, including the steps of defining a first rule chain and applying the first rule chain (Morgenstern (Fig. 4, 224) to the network session data to construct an aggregation tree (Covered in claim 1);

receiving a set of network usage data via the encapsulator (Col 15, lines 45-67), (Table 1);

processing the network usage data set via the aggregator, including the steps of defining a second rule chain (Morgenstern (Fig. 4, 220) and applying the second rule chain to the network usage data and the aggregation tree to construct a correlated aggregation tree (Covered in claim 1);

determining a correlated data set from the correlated aggregation tree (Covered in claim 1); and

storing the correlated data set in the data storage system (Col 16, lines 1-10).

In claim 14, Bullard combines with Morgenstern teaches about a method of claim 13, wherein the network session data set is in a standard data format "NAR format" received from a

session data collector having an encapsulator " NAR processing (Fig 14, 306, 302)", an aggregator and a data storage system "Local store , (Fig 14, 314)", (Col 15, line 45-Col 16, line 15).

In claim 15, Bullard combines with Morgenstern teaches about a method of claim 14, wherein the network usage data set is in the standard data format "NAR format" received from a usage data collector having an encapsulator, an aggregator and a data storage system (Col 15, line 45-Col 16, line 15).

In claim 16, Bullard combines with Morgenstern teaches about a method of claim 13, further comprising the step of defining the first rule set to be different than the second rule set (Covered in claim 1).

In claim 17, Bullard combines with Morgenstern teaches about a method for recording network usage comprising the steps of (Fig 1):

defining a first network data collector including a first encapsulator " NAR processing (Fig 14, 306, 302)", a first aggregator, and a first data storage system "Local store , (Fig 14, 314)" (Col 15, line 45-Col 16, line 15);

receiving a first set of network data via the first encapsulator (Col 15, line 45-Col 16, line 15);

processing the first network data set via the first aggregator, including the steps of defining an aggregation rule chain and determining a first set of aggregated data by applying the aggregation rule chain to the first set of network data (Covered in claim 1); and

storing the first aggregated network data set in the first data storage system (Col 15, line 45-Col 16, line 15).

In claim 18, Bullard combines with Morgenstern teaches about a method of claim of claim 17, wherein the step of applying the aggregation rule chain to the first set of network data further comprises the steps of:

constructing an aggregation tree (Covered in claim 1); and

determining the first aggregated network data set from the aggregation tree (Covered in claim 1).

In claim 19, Bullard combines with Morgenstern teaches about a method of claim 18, wherein the step of constructing an aggregation tree further includes the steps of:

defining the first network data set to includes a first network data event and a second network data event (Col 9, lines 46-55), (Col 17, lines 30-50);

applying the aggregation rule chain (Covered in claim 1) to the first network data event to construct a hierarchy of group nodes within the aggregation tree (Col 15, line 45-Col 16, line 15), (Col 18, line 39-Col 19, line 30); and

applying the aggregation rule chain to the second network data event to locate similar group nodes according to a predefined set of match rules, if no matching group nodes exist, extending the hierarchy of group nodes within the aggregation tree by creating additional group nodes (Col 17, lines 30-50), (Col 18, line 39-Col 19, line 30).

In claim 20, Bullard combines with Morgenstern teaches about a method of claim 19, wherein the step of applying the aggregation rule chain to the first network data event further includes the steps of:

defining the aggregation rule chain to include a first match rule for matching source IP address (Col 13, lines 20-30), (Col 8, lines 15-38), (Table 1);

defining the first network data event to include a first source IP address(Col 13, lines 20-30), (Col 8, lines 15-38), (Table 1);

applying the first match rule to the first network data event, including determining whether the aggregation tree includes a first group node matching the first source IP address; and

if a matching first group node does not exist, creating the first group node for the first source IP address (Col 17, lines 30-50).

In claim 21, Bullard combines with Morgenstern teaches about a method of claim 20, wherein the step of applying aggregation rule chain to the first network data event further includes the steps of:

defining the aggregation rule chain to include a second match rule for matching destination IP address (Col 18, line 39-Col 19, line 30), (Covered in claim 1);

defining the first network data event to include a first destination IP address(Col 13, lines 20-30), (Col 8, lines 15-38), (Table 1);

applying the second match rule to the first network data event, including determining whether the aggregation tree includes a second group node matching the first destination IP address (Col 18, line 39-Col 19, line 30), (Covered in claim 1); and

if a matching second group node does not exist, creating the second group node for the first destination IP address (Col 18, line 39-Col 19, line 30).

In claim 22, Bullard combines with Morgenstern teaches about a method of claim 21, wherein the step of applying the aggregation rule chain to the first network data event (Fig 21, 562a) further includes the steps of:

defining the aggregation rule set to include an aggregation rule (Col 18, lines 39-67);

defining the first network data event to include a port number and volume of information (Col 8, lines 15-38), (Table 1);

applying the aggregation rule to the first network data event, including copying the port number, source IP address, destination IP address and volume information to the second group node (Col 18, line 39-Col 19, line 30), (Covered in claim 1).

In claim 23, Bullard combines with Morgenstern teaches about a method of claim 17, further comprising the steps of:

defining a second network data collector (Fig 21, 562b) including a second encapsulator, a second aggregator, and a second data storage system (Col 15, line 45-Col 16, line 15);

receiving a second set of network data via the second network encapsulator (Col 15, line 45-Col 16, line 15);

processing the second network data set via the second aggregator, including the steps of defining a second rule chain and applying the second rule chain to the second set of network data to define a second set of aggregated network data (Col 15, line 45-Col 16, line 15); and

storing the second aggregated network data set in the second data storage system (Col 15, line 45-Col 16, line 15). (FDC has encapsulator, aggregator and data storage- see Fig 14).

In claim 24, Bullard teaches about a network usage recording system having a network data collector, the network data collector comprising (Col 15, lines 45-67):

an encapsulator for receiving a set of network accounting data and converting the network accounting data set to a standard data format " NAR processing (Fig 14, 306, 302)", (Col 15, line 45-Col 16, line 15);

an aggregator for processing the network accounting data set, the aggregator including a defined rule chain, wherein the aggregator applies the rule chain to the network accounting data set to construct an aggregation tree, and determines a set of aggregated network accounting data from the aggregation tree (Col 18, line 39-Col 19, line 30), (Covered in claim 1); and

a data storage system for storing the aggregated network accounting data "Local store , (Fig 14, 314)" , (Col 16, lines 1-10).

In claim 25, Bullard combines with Morgenstern teaches about a system of claim 24, wherein the process of applying the rule chain to the network accounting data performs data reduction on the network data (Col 17, lines 30-50), (Col 18, lines 39-67).

In claim 26, Bullard combines with Morgenstern teaches about a network usage recording system having a network data correlator collector, the network data correlator collector comprising (FDC has encapsulator, aggregator and data storage- see Fig 14) (Col 18, lines 39-67):

an encapsulator, which receives a set of network session data " NAR processing (Fig 14, 306, 302)" , (Col 18, lines 39-67);

an aggregator for processing the network session data set, the aggregator including a defined first rule chain, wherein the aggregator applies the first rule chain (Morgenstern (Fig. 4, 224) to the network session data set to construct an aggregation tree (Covered in claim 1);

wherein the encapsulator receives a set of network usage data, and the aggregator processes the network usage data set, the aggregator including a defined second rule chain(Morgenstern (Fig. 4, 220), wherein the aggregator applies the second rule chain to the network usage data set and the aggregation tree to construct a correlated aggregation tree, and determines a correlated data set from the correlated aggregation tree (Col 18, line 39-Col 19, line 30), (Covered in claim 1); and

a data storage system for storing the correlated data set "Local store , (Fig 14, 314)" , (Col 16, lines 1-10).

In claim 27, Bullard combines with Morgenstern teaches about a system of claim 26, wherein the network session data set is in a standard data format "NAR format" received from a session data collector having an encapsulator, an aggregator and a data storage system (Col 8, lines 15-38), (Table 1), (Col 15, line 45-Col 16, line 15).

In claim 28, Bullard combines with Morgenstern teaches about a system of claim 27, wherein the network usage data set is in the standard data format "NAR format" received from a usage data collector (FDC has encapsulator, aggregator and data storage- see Fig 14) having an encapsulator, an aggregator and a data storage system (Col 8, lines 15-38), (Table 1), (Col 15, line 45-Col 16, line 15)..

In claim 29, Bullard combines with Morgenstern teaches about a system of claim 26, further wherein the first rule set is different than the second rule set (Covered in claim 1).

In claim 30, Bullard combines with Morgenstern teaches about a method for recording network usage comprising:

defining a first network data collector including a first encapsulator (Fig 21, 562a) (Col 15, lines 45-67), a first aggregator (Col 18, lines 40-50), and a first data storage system "Local store , (Fig 14, 314)" , (Col 16, line 1-10); (FDC has encapsulator, aggregator and data storage-see Fig 14)

receiving a first set of network data via the first encapsulator (Fig 21, 562a) (Col 15, lines 45-67);

processing the first network data set via the first aggregator(Col 18, lines 40-50), including the steps of defining an aggregation rule chain and determining a first set of aggregated data by applying the aggregation rule chain to the first set of network data (Covered in claim 1); and

storing the first aggregated network data set in the first data storage system (Col 18, lines 50-67);

wherein applying the aggregation rule chain to the first set of network data further comprises:

constructing an aggregation tree (Covered in claim 1); and

determining the first aggregated network data set from the aggregation tree (Col 19, line 10-25);

wherein constructing an aggregation tree further includes defining the first network data set to includes a first network data event and a second network data event (Col 19, line 10-25);

applying the aggregation rule chain to the first network data event to construct a hierarchy of group nodes within the aggregation tree (Covered in claim 1); and

applying the aggregation rule chain to the second network data event to locate similar group nodes according to a predefined set of match rules (Col 19, line 10-25), (Covered in claim 1), if no matching group nodes exist, extending the hierarchy of group nodes within the aggregation tree by creating additional group nodes (Morgenstern (Col 22, lines 40-60); The action of blocking the node until all distinct children nodes are completed is equivalent to creating a second group as in the case of the applicant. In both cases, the intention is to preserve the node until the data that is needed to generate the final output is available.

wherein applying the aggregation rule chain to the first network data (Fig 21, 562a) event further includes:

defining the aggregation rule chain to include a first match rule for matching source IP address (Col 8, lines 1-38), (Fig. 11c), (Covered in claim 1);

defining the first network data event to include a first source IP address (Col 8, lines 1-38), (Fig. 11c);

applying the first match rule to the first network data event, including determining whether the aggregation tree includes a first group node matching the first source IP address (Col 8, lines 1-38), (Fig. 11c), (Fig. 18) (Covered in claim 1); and

if a matching first group node does not exist, creating the first group node for the first source IP address (Col 19, line 10-25) (Morgenstern (Col 22, lines 20-45); The process of creating a tree

wherein applying aggregation rule chain to the first network data event further includes:

defining the aggregation rule chain to include a second match rule for matching destination IP address (Col 19, line 10-25), (Morgenstern (Col 22, lines 20-45);

defining the first network data event to include a first destination IP address (Col 8, lines 1-38);

applying the second match rule to the first network data event, including determining whether the aggregation tree includes a second group node "sub module" matching the first destination IP address (Morgenstern (Col 20, lines 45-55); and

if a matching second group node "sub module" does not exist "not completed", creating the second group node for the first destination IP address (Morgenstern (Col 22, lines 40-60); The action of blocking the node until all distinct children nodes are completed is equivalent to creating a second group as in the case of the applicant. In both cases, the intention is to preserve the node until the data that is needed to generate the final output is available.

wherein applying the aggregation rule chain to the first network data event further includes:

defining the aggregation rule set to include an aggregation rule (Covered in claim 1);

defining the first network data event to include a port number and volume of information (Col 8, lines 1-38);

applying the aggregation rule to the first network data event, including copying the port number, source IP address, destination IP address and volume information to the second group node (Col 8, lines 1-38), (Col 19, line 10-25), (Fig. 18).

In claim 31, Bullard combines with Morgenstern teaches about a method of claim 30, further comprising:

defining a second network data collector (Fig 21, 562b) (FDC has encapsulator, aggregator and data storage- see Fig 14) including a second encapsulator“ NAR processing (Fig 14, 306, 302)” ,(Col 15, lines 45-67), a second aggregator(Col 18, lines 40-50), and a second data storage system “Local store , (Fig 14, 314)” , (Col 16, line 1-10);

receiving a second set of network data via the second network encapsulator (Col 15, lines 45-67);

processing the second network data set via the second aggregator(Col 15, lines 45-67), including:

defining a second rule chain and applying the second rule chain to the second set of network data to define a second set of aggregated network data (Covered in claim 1); and

storing the second aggregated network data set in the second data storage system (Col 18, lines 50-67).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 6,230,203 by Koperda et al., teaches about a system and method for providing statistics for flexible billing in a cable environment.

US Patent No. 6,446,200 by Ball et al., teaches about a Service management.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael S. A. Delgado whose telephone number is 703-305-8057. The examiner can normally be reached on 7.30 AM - 5.30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM A CUCHLINSKI JR can be reached on (703) 308-3873. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MD

MD

June 29, 2004

WILLIAM A. CUCHLINSKI, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600